

STEIN, KESSLER, GOLDSTEIN & FORD P.L.L.C.

ATTORNEYS AT LAW

1100 NEW YORK AVENUE, N.W., SUITE 600

WASHINGTON, D.C. 20005-3934

www.skgf.com

PHONE: (202) 371-2600 FACSIMILE: (202) 371-2540

ROBERT GREENE STERNE  
EDWARD J. KESSLER  
JORGE A. GOLDSTEIN  
SAMUEL L. FOX  
DAVID K.S. CORNWELL  
ROBERT W. ESMOND  
TRACY-GENE G. DURKIN  
MICHELE A. CIMBALA  
MICHAEL B. RAY  
ROBERT E. SOKOHL  
ERIC K. STEFFE  
MICHAEL Q. LEE

STEVEN R. LUDWIG  
JOHN M. COVERT\*  
LINDA E. ALCORN  
RAZ E. FLESHNER  
ROBERT C. MILLONIG  
MICHAEL V. MESSINGER  
JUDITH U. KIM  
TIMOTHY J. SHEA, JR.  
DONALD R. MCPHAIL  
PATRICK E. GARRETT  
STEPHEN G. WHITESIDE  
JEFFREY T. HELVEY\*

HEIDI L. KRAUS  
JEFFREY R. KURIN  
RAYMOND MILLIEN  
PATRICK D. O'BRIEN  
LAWRENCE B. BUGAISKY  
CRYSTAL D. SAYLES\*  
EDWARD W. YEE  
ALBERT L. FERRO\*  
DONALD R. BANOWIT  
PETER A. JACKMAN  
MOLLY A. MCCALL  
TERESA U. MEDLER

JEFFREY S. WEAVER  
KRISTIN K. VIDOVICH  
KENDRICK P. PATTERSON  
DONALD J. FEATHERSTONE  
GRANT E. REED  
VINCENT L. CAPUANO  
JOHN A. HARROUN\*  
MATTHEW M. CATLETT\*  
NATHAN K. KELLEY\*  
ALBERT J. FASULO II\*  
W. BRIAN EDGE\*

KAREN R. MARKOWICZ\*\*  
SUZANNE E. ZISKA\*\*  
BRIAN J. DEL BUONO\*\*  
ANDREA J. KAMAGE\*\*  
NANCY J. LEITH\*\*  
TARJA H. NAUKKARINEN\*\*

\*BAR OTHER THAN D.C.

\*\*REGISTERED PATENT AGENTS

August 31, 2000

WRITER'S DIRECT NUMBER:

(202) 371-2637

INTERNET ADDRESS:

KARENM@SKGF.COM

Commissioner for Patents  
Washington, D.C. 20231

**Box Patent Application**

Re: U.S. Non-Provisional Utility Patent Application under 37 C.F.R. § 1.53(b)  
Appl. No. To be assigned; Filed: August 31, 2000  
For: **Cell-Specific and/or Tumor-Specific Promoter Retargeting of Herpes  
Gamma 34.5 Gene Expression**  
Inventors: Chiocca and Chung  
Our Ref: 0609.4880002/JAG/KRM

Sir:

The following documents are forwarded herewith for appropriate action by the U.S.  
Patent and Trademark Office:

1. PTO Utility Patent Application Transmittal (Form PTO/SB/05);
2. U.S. Utility Patent Application entitled:

**Cell-Specific and/or Tumor-Specific Promoter Retargeting of Herpes  
Gamma 34.5 Gene Expression**

and naming as inventors:

E. Antonio CHIOCCA  
Richard Y. CHUNG

Commissioner for Patents

August 31, 2000

Page 2

the application consisting of:

- a. A specification containing:
  - i. 92 pages of description prior to the claims;
  - ii. 6 pages of claims (36 claims);
  - iii. a one (1) page abstract;
- b. 18 sheets of drawings: (Figures 1A-13);
- c. 1 page of a paper copy of a sequence listing; and
- d. A computer readable disk copy of the sequence listing;
3. PTO Fee Transmittal (Form PTO/SB/17);
4. Authorization to Treat a Reply As Incorporating An Extension of Time Under 37 C.F.R. § 1.136(a)(3);
5. Facsimile copy of an original executed combined Declaration and Power of Attorney;
6. Assignment Recordation Form Cover Sheet;
7. Facsimile copy of an original executed Assignment to The General Hospital Corporation, recordation of which is hereby respectfully requested;
8. Our check No. 28596 for \$ 1096.00 to cover:
  - \$ 690.00 Filing fee for patent application;
  - \$ 40.00 Assignment recordation fee(s);
  - \$ 366.00 Fee for excess claims; and
9. Two (2) return postcards.

In accordance with 37 C.F.R. § 1.821(f), the paper copy of the sequence listing and the computer readable copy of the sequence listing submitted herewith in the above application are the same.

0965327.08.100

Commissioner for Patents

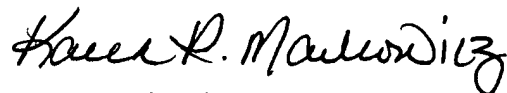
August 31, 2000

Page 3

It is respectfully requested that, of the two attached postcards, one be stamped with the filing date of these documents and returned to our courier, and the other, prepaid postcard, be stamped with the filing date and unofficial application number and returned as soon as possible. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. A duplicate copy of this letter is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Karen R. Markowicz  
Agent for Applicants  
Registration No. 36,351

JAG/KRM/jk  
Enclosures

P:\USERS\J\KING\Biotech\KRM\0609-488-2trans\ltr083100  
SKGF Rev. 8/1/00 mac

0065327.083100

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**FEE TRANSMITTAL**

for FY 2000

Patent fees are subject to annual revision.

Small Entity payments must be supported by a small entity statement, otherwise large entity fees must be paid. See Forms PTO/SB/09-12.

See 37 C.F.R. §§ 1.27 and 1.28.

**Complete if Known**

Application Number	To be assigned
Filing Date	August 31, 2000
First Named Inventor	Chiocca and Chung
Examiner Name	To be assigned
Group / Art Unit	To be assigned
Attorney Docket Number	0609.4880002/JAG/KRM

TOTAL AMOUNT OF PAYMENT (\$)**1096.00****METHOD OF PAYMENT (check one)**

- 1.
- ☐
- The Commissioner is hereby authorized to charge indicated fees and credit any overpayment to:

Deposit Account Number **19-0036**

Deposit Account Name **Sterne, Kessler, Goldstein & Fox P.L.L.C.**

☐ Charge Any Additional Fee Required Under 37 CFR §§ 1.16 and 1.17

- 2.
- ☒
- Payment Enclosed;
- ☒
- Check
- ☐
- Money Order
- ☒
- Other\*
- 
- \*Charge any deficiencies or credit any overpayments in the fees or fee calculations of Parts 1, 2 and 3 below to Deposit Account No. 19-0036.

**FEE CALCULATION****1. BASIC FILING FEE**

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid
101	690	201	345	Utility filing fee	690.00
106	310	206	155	Design filing fee	
107	480	207	240	Plant filing fee	
108	690	208	334	Reissue filing fee	
114	150	214	75	Provisional filing fee	
SUBTOTAL (1) (\$)					690.00

**2. EXTRA CLAIM FEES**

	Extra	Fee from below	Fee Paid
Total Claims <b>36</b> - 20** = <b>16</b>	X	<b>18</b>	= <b>288.00</b>
Indep. Claims <b>4</b> - 3** = <b>1</b>	X	<b>78</b>	= <b>78.00</b>
Multiple Dependent		<b>0</b>	= <b>0.00</b>

\*\* or number previously paid, if greater; For Reissues, see below

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	
103	18	203	9	Claims in excess of 20	
102	78	202	39	Independent claims in excess of 3	
104	260	204	130	Multiple dependent claim	
108	78	209	39	**Reissue independent claims over original patent	
110	18	210	9	**Reissue claims in excess of 20 and over original patent	
SUBTOTAL (2)				(\$)	366.00

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid
105	130	205	65	Surcharge - late filing fee or oath	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for reply within first month	
116	380	216	190	Extension for reply within second month	
117	870	217	435	Extension for reply within third month	
118	1,360	218	680	Extension for reply within fourth month	
128	1,850	228	925	Extension for reply within fifth month	
119	300	219	150	Notice of Appeal	
120	300	220	150	Filing a brief in support of an appeal	
121	260	221	130	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,210	241	605	Petition to revive - unintentional	
142	1,210	242	605	Utility issue fee (or reissue)	
143	430	243	215	Design issue fee	
144	580	244	290	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	50	123	50	Petitions related to provisional applications	
126	240	126	240	Submission of Information Disclosure Stmt	
581	40	581	40	Recording each patent assignment per property (times number of properties)	40.00
146	690	246	345	Filing a submission after final rejection (37 CFR 1.129(a))	
149	690	249	345	For each additional invention to be examined (37 CFR 1.129(b))	
Other fee (specify) :					
Other fee (specify) :					
*Reduced by Basic Filing Fee Paid					
SUBTOTAL (3) (\$)					40.00

**SUBMITTED BY****Complete (if applicable)**

Typed or Printed Name	Karen R. Markowicz	Reg. Number	36,351
Signature	Karen R. Markowicz	Date	8/31/00
		Deposit Acct. User ID	19-0036

**WARNING:**

Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a sign(+) inside this box



PTO/SB/05 (2/98)

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE  
For use through 09/30/2000. OMB 0651-0032

Under the Paperwork Reduction Act of 1995, respondents are required to respond to a collection of information unless it displays a valid OMB control number.

<b>UTILITY PATENT APPLICATION TRANSMITTAL</b> (Only for new nonprovisional applications under 37 CFR § 1.53(b))	Attorney Docket No.	0609.4880002
	First Inventor or Application Identifier	Chiocca and Chung
	Title	Cell-Specific and/or Tumor-Specific Promoter Retargeting of Herpes Gamma 34.5 Gene Expression
	Express Mail Label No.	



<b>APPLICATION ELEMENTS</b> See MPEP chapter 600 concerning utility patent application contents.	<b>ADDRESS TO:</b> Assistant Commissioner for Patents Box Patent Application Washington, DC 20231
---	---

1. ☒ \* Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original, and a duplicate for fee processing)
2. ☒ Specification [Total Pages 99 ]  
(preferred arrangement set forth below)
  - Descriptive title of the Invention
  - Cross References to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to Microfiche Appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
3. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 18 ]
4. ☒ Oath or Declaration [Total Pages 2 ]
  - a. ☒ Newly executed (original or copy)
  - b. ☐ Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 17 completed)  
[Note Box 5 below]
    - i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR §§ 1.63(d)(2) and 1.33(b).
5. ☐ Incorporation By Reference (useable if Box 4b is checked)  
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

6. ☐ Microfiche Computer Program (Appendix)
7. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
  - a. ☒ Computer Readable Copy
  - b. ☒ Paper Copy (identical to computer copy)
  - c. ☒ Statement verifying identity of above copies

<b>ACCOMPANYING APPLICATION PARTS</b>	
8. <input checked="" type="checkbox"/> Assignment Papers (cover sheet & document(s))	
9. <input type="checkbox"/> 37 CFR 3.73(b) Statement (when there is an assignee)	<input type="checkbox"/> Power of Attorney
10. <input type="checkbox"/> English Translation Document (if applicable)	
11. <input type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449	<input type="checkbox"/> Copies of IDS Citations
12. <input type="checkbox"/> Preliminary Amendment	
13. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) (Should be specifically itemized)	
14. <input type="checkbox"/> *Small Entity Statement(s) (PTO/SB/09-12)	<input type="checkbox"/> Statement filed in prior application, Status still proper and desired
15. <input type="checkbox"/> Certified Copy of Priority Document(s) (if foreign priority is claimed)	
16. <input checked="" type="checkbox"/> Other: 37 C.F.R. § 1.136(a)(3) Authorization	
<input type="checkbox"/> Other:	
<small>*NOTE FOR ITEMS 1 &amp; 14: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).</small>	

17. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:

☐ Continuation ☐ Divisional ☐ Continuation-in-Part (CIP) of prior application No: \_\_\_\_/\_\_\_\_

Prior application information: Examiner \_\_\_\_\_ Group/Art Unit: \_\_\_\_\_

### 18. CORRESPONDENCE ADDRESS

<input type="checkbox"/> Customer Number or Bar Code Label		<input checked="" type="checkbox"/> Correspondence address below	
(Insert Customer No. or Attach bar code label here)			
NAME	STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.		
	Attorneys at Law		
ADDRESS	Suite 600, 1100 New York Avenue, N.W.		
CITY	Washington	STATE	DC
COUNTRY	USA	TELEPHONE	(202) 371-2600
		ZIP CODE	20005-3934
		FAX	(202) 371-2540

NAME (Print/Type)	Karen R. Markowicz	Registration No. (Attorney/Agent)	36,351
SIGNATURE	<i>Karen R. Markowicz</i>	Date	8/31/00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Chiocca and Chung

Appl. No.: to be assigned

Filed: August 31, 2000

For: **Cell-Specific and/or Tumor-Specific Promoter Retargeting of Herpes Gamma 34.5 Gene Expression**

Art Unit: To be assigned

Examiner: To be assigned

Atty. Docket: 0609.4880002/JAG/KRM



**Authorization To Treat A Reply As Incorporating An Extension Of Time Under 37 C.F.R. § 1.136(a)(3)**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

The U.S. Patent and Trademark Office is hereby authorized to treat any concurrent or future reply that requires a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. The U.S. Patent and Trademark Office is hereby authorized to charge all required extension of time fees to our Deposit Account No. 19-0036, if such fees are not otherwise provided for in such reply. A duplicate copy of this authorization is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

*Karen R. Markowicz*  
Karen R. Markowicz

Agent for Applicants

Registration No. 36,351

Date: 8/31/00  
1100 New York Avenue, N.W.  
Suite 600  
Washington, D.C. 20005-3934  
(202) 371-2600